The listing of the claims will replace all prior versions, and listings, of the claims in the application.

LISTING OF THE CLAIMS

1. (currently amended) A method of **affecting a change in gene expression of** ~~**reprogramming**~~ a keratinocyte comprising treating a keratinocyte with a first agent, which promotes the demethylation of a nucleic acid, and a second agent, which inhibits the deacetylation of a histone protein, such that a ~~**reprogrammed**~~ cell is produced ~~**upon treating the keratinocyte with the first agent and the second agent, wherein the reprogrammed cell**~~ **which** expresses a telomerase gene product and is capable of expressing a gene product which is not expressed by a keratinocyte.

2. (original) The method of claim 1 wherein the first agent is a 5-aza-2'-deoxycytidine.

3. (original) The method of claim 1 wherein the second agent is a trichostatin A.

4. (original) The method of claim 1 wherein the keratinocyte is a human keratinocyte.

5. (original) The method of claim 1 wherein the keratinocyte is treated with a third agent, which promotes the arrest of cells in metaphase.

6. (original) The method of claim 5 wherein the third agent is a Tat-cyclin B.

7. (original) The method of claim 6 wherein the gene product which is not expressed by a keratinocyte is selected from the group consisting of a neurofilament, a cardiac actin and an alpha-antitrypsin.

8. (original) The method of claim 6 wherein the gene product which is not expressed by a keratinocyte is a cardiac actin.

9. (original) The method of claim 5 wherein the keratinocyte is treated with a fourth agent, which promotes cell differentiation.

10. (original) The method of claim 9 wherein the fourth agent is a retinoic acid.

11. (currently amended) The method of claim 10 wherein the ~~**reprogrammed**~~ cell expresses a gene product selected from the group consisting of a neurofilament, a cardiac actin and an alpha-antitrypsin.

12. (currently amended) The method of claim 10 wherein the ~~**reprogrammed**~~ cell expresses a cardiac actin gene product.